IN THE CLAIMS

Please amend the claims as follows, substituting any amended claim(s) for the corresponding pending claim(s):

1. (Currently Amended) A method for assigning Orthogonal Walsh codes from one set of Walsh codes in one of an omni-cell or a cell sector in a code division multiple access network to create communication channels between the mobile stations and a base station, comprising:

determining that there is a mobile station that requires a Walsh code and that there are not available codes from the one set of Walsh codes within the omni-cell or cell sector need to reuse a code within a defined cell area;

determining an optimal mobile station whose Orthogonal code is to be reused; and

assigning the determined Walsh code that is to be re-used to the mobile station that needs the Walsh code to establish a communication channel wherein the determined Walsh code is assigned to two mobile stations within one of the omni-cell or cell sector at the same time.

2. (Original) The method of claim 1 further comprising defining a plurality of zones.

3. (Original) The method of claim 2 further comprising statically building a ranked list of zones according to interference there between.

4. (Original) The method of claim 2 further comprising statically building a ranked list of zones according to angular separation.

5. (Original) The method of claim 2 further comprising defining a ranked list of zones according to interference between zones and according to angular separation between zones.

6. (Original) The method of claim 5 wherein zones in which side lobes are present for a primary lobe in a zone in which the reused code is to be assigned are eliminated from the ranked list.

7. (Original) The method of claim 6 wherein the mobile station is selected by considering, at least in part, whether the mobile station is a fixed wireless access user.

8. (Original) The method of claim 6 wherein the mobile station is selected by considering, at least in part, its speed.

9. (Original) The method of claim 6 wherein the mobile station is selected by considering, at least in part, its direction of travel.

10. (Original) The method of claim 6 wherein the mobile station is selected by considering, at least in part, its location.

11. (Original) The method of claim 6 wherein the mobile station is selected by considering, at least in part, its call duration length.

12. The method of claim 6 wherein the mobile station is selected by considering, at least in part, its frame error rate.

13. (Original) The method of claim 6 wherein the mobile station is selected by considering, at least in part, its power consumption level.

14. (Original) The method of claim 6 wherein the mobile station is selected by considering, at least in part, a known interference between the mobile station and the mobile station to whom the code is to be reassigned.

15. (Original) The method of claim 6 wherein the mobile station is selected by considering, at least in part, a correlation of its time and speed.

16. (Original) The method of claim 6 wherein the mobile station is selected by considering, at least in part, whether a hysterisis is in effect for the user.

17. (Original) The method of claim 6 wherein the mobile station is selected by considering, at least in part, according to whether the call is a data or voice call.

18. (Original) The method of claim 6 wherein the mobile station is selected by considering, at least in part, whether, if the call is a data call, whether it is bursty or continuous.

19. (Original) The method of claim 1 wherein the need to reuse an Orthogonal code occurs because of a determination that a collision is eminent between the two mobile stations using the same Orthogonal code.

20. (Original) The method of claim 19 wherein the need is determined prior to the occurrence of an actual collision.

21. (Original) The method of claim 19 wherein the determination is made by considering whether the frame error rate is increasing.

22. (Original) The method of claim 19 wherein the determination is made by considering whether the power usage is increasing.

23. (Original) The method of claim 19 wherein the determination is made by considering whether there is a significant change in speed.

24. (Original) The method of claim 19 wherein the determination is made by considering whether there is a significant change in direction.

25. (Original) The method of claim 19 wherein the determination is made by considering whether a handoff is occurring to a non-compatible zone.

26. (Original) The method of claim 19 wherein the determination is made by considering whether the mobile station is moving towards the cell center.

27. (Original) The method of claim 19 wherein the determination is made by considering whether the mobile station is too close to the cell center.

28. (Original) The method of claim 19 wherein the determination is made by considering whether the signal quality falls below a specified threshold.

29. (Currently Amended) A method for assigning an Orthogonal code in a code division multiple access network, comprising:

determining that a need exists to reuse an Orthogonal code that is already assigned to a mobile station for creating a communication channel in one of an omni-cell or cell sector;

defining a plurality of zones and generating a mapping that assigns weights representing zone interference to rank each defined zone relative to other zones based upon primary and side lobe radiation patterns;

evaluating at least one of zone interference, zone separation and mobile station characteristics including location and speed for those mobile stations that already have been assigned Orthogonal code and selecting an Orthogonal code to be reused and assigning the selected Orthogonal code to a mobile station that is requiring an Orthogonal code within the omni-cell or cell sector based upon the evaluation.

30. (Original) The method of claim 29, wherein the candidate donor mobile station's characteristics that are evaluated include at least one of whether the candidate donor mobile station is a fixed wireless access user, its speed, its direction, the candidate donor location, the candidate donor's call duration, the candidate donor's frame error rate, the candidate donor's power consumption, whether the candidate donor is

transmitting data or voice, if the candidate donor is transmitting data, whether it is bursty or continuous data.

31. (Currently Amended) The method of claim [[28]]29, wherein selecting a donor mobile station includes selecting an Orthogonal code for a mobile station whose location is in a zone that has significant angular separation from the zone in which a requesting mobile station is located when the requesting mobile station is the one needing to reuse an Orthogonal code.

32. The method of claim [[28]]29, further comprising monitoring the Orthogonal code mobile station characteristics for the two mobile stations using the same Orthogonal code to determine whether a likelihood of a collision is increasing beyond a specified threshold.

33. (Currently Amended) A base station transceiver system for assigning Orthogonal Walsh codes from one set of Walsh codes to create communication channels in a cell sector of a code division multiple access network, comprising:

circuitry for performing routine base station transceiver system operations; and

logic circuitry for selecting an Orthogonal code from the one set of Walsh codes in the cell sector for reuse from a donor mobile station located in the cell sector according to the ~~a cell portion according to the~~ location of the mobile station and specified mobile station characteristics.

34. (Currently Amended) The base station transceiver system of claim 34, wherein the logic circuitry evaluates the angular separation between a cell portion in which the donor mobile is located and ~~that is selected for initially evaluating mobile stations for donating their Orthogonal code for reuse includes evaluating the angular separation between the cell portion and~~ a cell portion in which the code is to be reused, all within the same cell sector.